

## List of Core Learning Goals For Insertion into Lesson Plan Form

1.1.1. Given a numeric or geometric pattern, algebraic or geometric representation, or written description, the student will give a verbal description of a pattern or functional relationship.

1.1.3. The student will represent a situation as a sum, difference, product, and/or quotient in one variable.

1.2.1. Given the graph of a line, or a written description of a situation that can be modeled by a linear function, or two or more collinear points, or a point and slope, the student equation, or solve a one-variable equation for the unknown, or solve a two-variable equation for one of the variables and graph the resulting equation or interpret the solution in light of the context, make a prediction, create a table of values, find and/or interpret the slope and/or intercepts in relation to the context.

1.2.3. Given a written description or the graph of two lines, or equations for two lines, the student will determine the system of equations and its solution, or describe the relationship of the points on one line with the points on the other line or give the meaning of the point of intersection in the context of the problem, or graph the system, determine the solution and interpret the solution in the context of the problem.

1.2.5. Given a formula, students will substitute values, solve and interpret solutions in the context of a problem. Given matrices, the students will perform operations and interpret solutions in real-world contexts.

2.1.2. The student uses transformations to move figures, create designs, and/or demonstrates properties.

2.1.4. The student draws or constructs geometric figures and then justifies the solution.

2.2.2 The student solves a problem involving missing parts of two-dimensional figures that may require the use of right-triangle trigonometry.

2.3.1 The student calculates measures indirectly by using know data and mathematical concepts.

3.1.1 The students will describe how they would do an investigation, select an investigation and defend their choice. Students will consider simple

1.1.2. Given a written description, algebraic expression, or graph with easily read coordinates or a table, the student will produce a graph, table, linear, or  $x^2$  (simple quadratic) algebraic expression. For an ECR, the algebraic expression can be an explicit or recursive expression.

1.1.4. Given the graph of a non-linear function, the student will identify maxima/minima, roots, rate of change over a given interval (increasing/decreasing), continuity, or domain and range. (Problems will not be contextualized.)

1.2.2. Given a linear inequality, as a written description, or an algebraic expression, or a graph, the student will graph the inequality in the context of the problem. Any correct form of a linear inequality will be an acceptable response.

1.2.4. Given a graph in a context, the student will describe the graph and/or explain how the graph represents the problem or solution and/or estimate the solution.

2.1.1. The student describes, constructs, and analyzes geometric figures.

2.1.3. Given one or two transformations, the students sketches and/or explains the geometric effect on the figure.

2.2.1 The student describes shape as congruent, enlarged, or reduced, calculates corresponding measures, and/or justifies his or her solution.

2.2.3 The student identifies an argument as inductive or deductive reasoning or given a situation the student arrives at a conclusion using inductive or deductive reasoning.

2.3.2 The student solves a problem involving perimeter, area, surface area, circumference, or volume expressing solutions with appropriate units.

3.1.2 The student uses measures of central tendency and variability to solve problems and make informed decisions.

random sampling (SRS) techniques that may include sampling size, bias representation, and randomness.

3.1.3 Using data, the student determines the experimental or theoretical probability of an event.

3.2.2 The students will demonstrate his or her understanding of the process by finding a line of best fit and by using it to make predictions and/or interpret data (slope and intercepts) or by using a curve of best fit to make a prediction.

3.2.1 Given data from simulation or research, the student makes informed decisions and predictions.

3.2.3 Given a set of data or statistics, the student will analyze and identify both proper and improper use of statistics.